

Esophageal Candidiasis



O Pech, St. John of God Hospital, Regensburg, Bavaria, Germany

© 2013 Elsevier GmbH. Open access under CC BY-NC-ND license.

Received 7 August 2012; Revision submitted 15 August 2012; Accepted 16 August 2012

Abstract

Esophageal candidiasis is most common in patients with hematologic malignancies and human immunodeficiency virus-infected patients. However, esophageal candidiasis is also sometimes found in patients using inhaled corticosteroids. Diagnosis is made during upper endoscopy, showing white or yellowish plaque-like lesions on the mucosal surface. This article is part of an expert video encyclopedia.

Keywords

Dysphagia; Esophageal candidiasis; Esophagitis; Standard endoscopy; Video.

Video Related to this Article

Video available to view or download at doi:10.1016/S2212-0971(13)70029-3

Technique

High-definition white-light endoscopy.

Material

- Endoscope: EG-530 WR; Fujinon (Europe), Germany.

Background and Endoscopic Procedure

Esophageal candidiasis is most common in patients with hematologic malignancies and human immunodeficiency virus-infected patients.^{1,2} However, esophageal candidiasis is also sometimes found in patients with chronic obstructive pulmonary disease using inhaled corticosteroids.³ Symptoms are usually dysphagia or odynophagia. Diagnosis of esophageal candidiasis is usually made during upper endoscopy. Usually white or slightly yellowish, plaque-like lesions are seen on the esophageal mucosa. To confirm diagnosis, biopsies can be performed showing the presence of yeasts and pseudohyphae invading into mucosal cells. Cultures reveal *Candida*, but are usually not necessary for diagnosis.

Differential diagnoses of esophageal candidiasis are esophagitis from other causes, such as cytomegalovirus infection, herpes simplex infection, eosinophilic esophagitis, intramural pseudodiverticulosis, and medication-induced esophagitis. Esophageal candidiasis should not be treated with topical

agents but requires systemic therapy.⁴ Treatment is usually done with fluconazole, 200 mg daily, for 7–10 days. It is effective in 80–90% of patients. Other antifungal agents such as voriconazole or itraconazole should only be used in patients unresponsive to fluconazole treatment.⁵

Key Learning Points/Tips and Tricks

- Diagnosis of esophageal candidiasis can easily be made during upper endoscopy.
- White or yellowish mucosal plaque-like lesions are the typical appearance.
- Esophageal candidiasis requires systemic antifungal treatment with, for example, fluconazole.

Scripted Voiceover

Time	Voiceover text
00:00	This is a patient referred for upper endoscopy because of odynophagia. The patient's medical history reveals COPD with the use of inhaled corticosteroids. The mucosa of the distal esophagus appears normal.
00:20	However, when pulling back the endoscope white and yellowish plaque-like lesions are seen. These mucosal plaques and pseudomembranes are the typical appearance of esophageal candidiasis. Biopsies can be performed but are usually not necessary for diagnosis. The plaques can be scraped away with the tip of the endoscope.

References

1. Wilcox, C. M.; Straub, R. F.; Clark, W. S. Prospective Evaluation of Oropharyngeal Findings in Human Immunodeficiency Virus-Infected Patients With Esophageal Ulceration. *Am. J. Gastroenterol.* **1995**, *90*, 1938–1941.

This article is part of an expert video encyclopedia. Click here for the full [Table of Contents](#).

2. Bonacini, M.; Young, T.; Laine, L. The Causes of Esophageal Symptoms in Human Immunodeficiency Virus Infection. A Prospective Study of 110 Patients. *Arch. Intern. Med.* **1991**, *151*, 1567–1570.
3. Kanda, N.; Yasuba, H.; Takahashi, T.; *et al.* Prevalence of Esophageal Candidiasis Among Patients Treated With Inhaled Fluticasone Propionate. *Am. J. Gastroenterol.* **2003**, *98*, 2146–2149.
4. Darouiche, R. O. Oropharyngeal and Esophageal Candidiasis in Immunocompromised Patients: Treatment Issues. *Clin. Infect. Dis.* **1998**, *26*, 259–262.
5. Laine, L.; Dretler, R. H.; Contreas, C. N.; *et al.* Fluconazole Compared With Ketoconazole for the Treatment of *Candida* esophagitis in AIDS. A Randomized Trial. *Ann. Intern. Med.* **1992**, *117*, 655–658.